Amendment 1:2013 to
SMPTE ST 12-2:2008

SMPTE STANDARD

Transmission of Time Code in the Ancillary Data Space — Amendment 1

Table of Contents

Page

Foreword 2
Introduction 2
1 Amendment of Foreword 3
2 Amendment of Section 1 Scope 3
3 Amendment of Section 3 Normative References 3
4 Amendment of Section 4.6 UDW 3
5 Amendment of Section 5 Format of Ancillary Time Code Packets 3
6 Amendment of Section 6 subsections 3
7 Amendment of Section 7 subsections 3
8 Amendment of Section 7.2 ATC Packet Transmission Rate 4
9 Amendment of Section 9 subsections 4
10 Amendment of Annex A Bibliography (Informative) 4
11 Amendment of Annex B Time Code System "Roadmap" (Informative) 5

Copyright © 2013 by THE SOCIETY OF
MOTION PICTURE AND TELEVISION ENGINEERS
3 Barker Avenue., White Plains, NY 10601
(914) 761-1100

Approved
August 29, 2013

Foreword

SMPTE (the Society of Motion Picture and Television Engineers) is an internationally-recognized standards developing organization. Headquartered and incorporated in the United States of America, SMPTE has members in over 80 countries on six continents. SMPTE's Engineering Documents, including Standards, Recommended Practices, and Engineering Guidelines, are prepared by SMPTE's Technology Committees. Participation in these Committees is open to all with a bona fide interest in their work. SMPTE cooperates closely with other standards-developing organizations, including ISO, IEC and ITU.

SMPTE Engineering Documents are drafted in accordance with the rules given in Part XIII of its Operations Manual.

Amendment 1 to SMPTE ST 12-2:2008 was prepared by Technology Committee 33TS.

Introduction

The purpose of this amendment is to add support for Progressive video systems with 48 and 48/1.001 Hz frame rates. The techniques described in this amendment follow the same rules used in SMPTE ST 12-2 for Progressive video systems with 50, 60 and 60/1.001 Hz frame rates.

This amendment also updates the normative references to the current versions.

Change instructions are shown in *italics*. Inserted text is shown thus. Deleted text is shown ~~thus.~~

1 Amendment of Foreword

Replace the 3rd paragraph with the following:

SMPTE Standard ST 12~~M~~-2 was prepared by Technology Committee 33TS~~S22~~.

2 Amendment of Section 1 Scope

Revise the first two sentences of the Scope as follows:

This standard defines a transmission format for conveyance of linear (LTC) or vertical interval (VITC) time code data formatted according to SMPTE ST 12~~M~~-1 in 8-, 10-, or 12-bit digital television data interfaces. Time code information is transmitted in the ancillary data space as defined in SMPTE ST 291~~M~~-1.

3 Amendment of Section 3 Normative References

Replace the references to SMPTE 12M-1-2008, SMPTE 291M-2006 and SMPTE RP168-2002 with the following references:

SMPTE ST 12~~M~~-1:2008 Time and Control Code

SMPTE ST 291~~M~~-1:20~~09~~11 Ancillary Data Packet and Space Formatting

SMPTE RP 168:200~~2~~9, Definition of Vertical Interval Switching Point for Synchronous Video Switching

After the reference to SMPTE 12-1:2008 add the following reference

Amendment 1:2013 to SMPTE ST 12-1:2008, Time and Control Code — Amendment 1

4 Amendment of Section 4.6 UDW

Amend the definition of UDW as follows:

The acronym UDW is an abbreviation for “user data word" as defined in SMPTE ST 291-1~~M~~.

5 Amendment of Section 5 Format of Ancillary Time Code Packets

Amend the first sentence in the first paragraph as follows:

Each data packet shall comply with the format defined in SMPTE ST 291-1~~M~~ for a type 2 ANC packet.

6 Amendment of Section 6 subsections

Amend each instance of “SMPTE 12M-1” to “SMPTE ST 12-1” in Sections 6.1.2, 6.2.1.1, 6.2.1.2, 6.2.1.3, 6.2.2.1, 6.2.2.3, 6.3, and in Table 6 (in Section 6.3 and footnotes).

7 Amendment of Section 7 subsections

Amend each instance of “SMPTE 12M-1” to “SMPTE ST 12-1” in Section 7.2.

8 Amendment of Section 7.2 ATC Packet Transmission Rate

In the first sentence of the fourth paragraph replace the reference to the section heading in SMPTE ST 12-1 :

"Time address of a frame in 48, 50 and 60 frames-per-second progressive systems"

9 Amendment of Section 9 subsections

Amend each instance of "SMPTE 12M-1" to "SMPTE ST 12-1" in Sections 9, 9.1, 9.2, and 9.3.

10 Amendment of Annex A Bibliography (Informative)

Amend the citations to SMPTE documents as follows:

SMPTE ST 170M :2004, Television — Composite Analog Video Signal — NTSC for Studio Applications

SMPTE ST 260M :1999, Television — 1125/60 High-Definition Production System — Digital Representation and Bit-Parallel Interface

SMPTE ST 266M :2012 4:2:2 SD Digital Component Systems — Digital Vertical Interval Time Code

SMPTE ST 292-1 :2012, 1.5 Gb/s Signal / Data Serial Interface

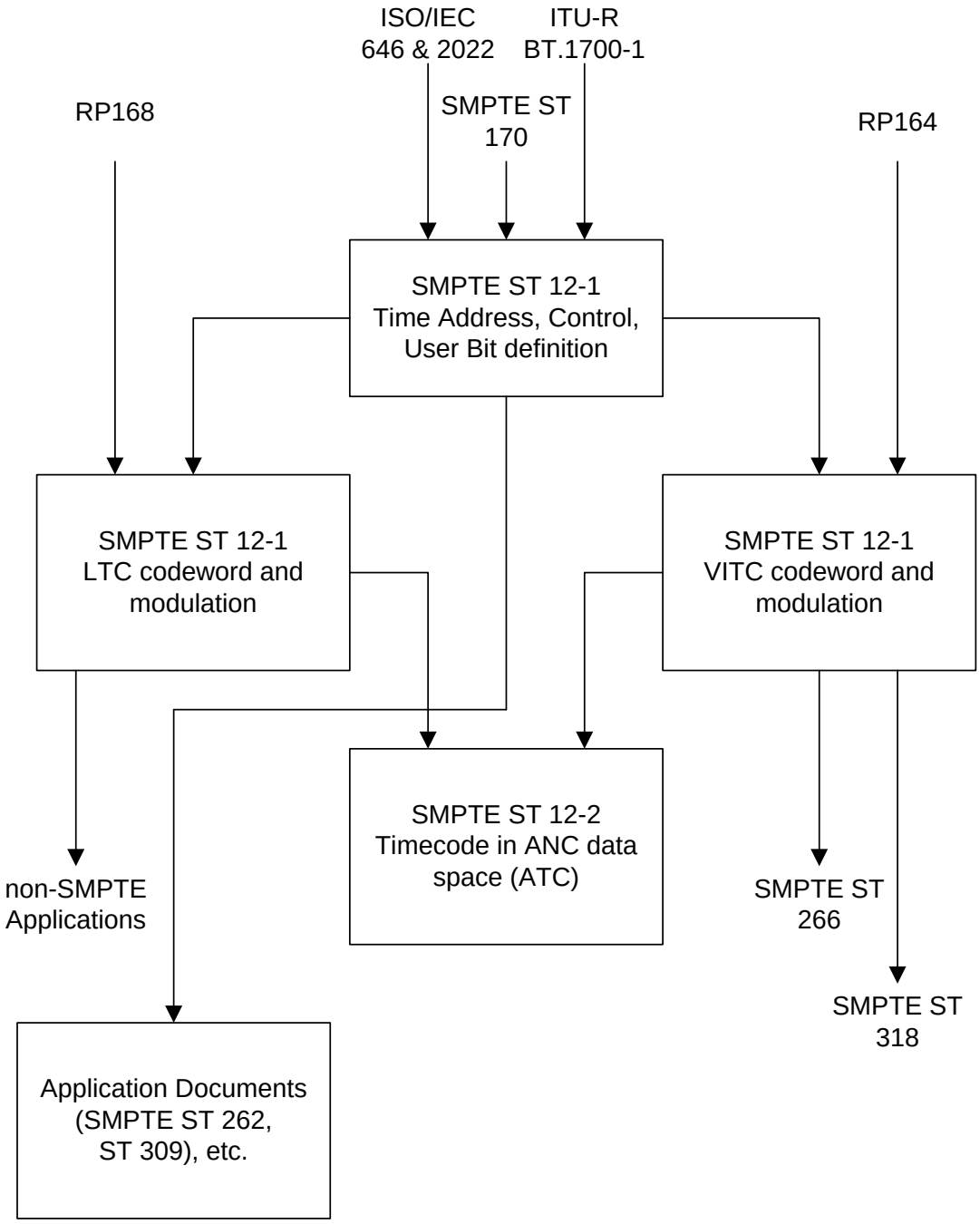
SMPTE ST 274M :2008, Television — 1920 x 1080 Image Sample Structure, Digital Representation and Digital Timing Reference Sequences for Multiple Picture Rates

SMPTE RP 201 :2008, Encoding Film Transfer Information Using Vertical Interval Time Code

Amend the citations to ITU documents as follows:

Recommendation ITU-R BT.1700 (2005), Annex 2 Characteristics of Composite Video Signals for Conventional Analogue Television Systems, Annex 1 Part B, PAL signal format and specification

Recommendation ITU-R BT.1366-2 (2009), Transmission of Time Code and Control Code in the Ancillary Data Space of a Digital Television Stream According to ITU-R BT.656, ITU-R BT.799, and ITU-R BT.1120

11 Amendment of Annex B Time Code System "Roadmap" (Informative)

Replace the "Roadmap" drawing with the following: